

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU2004/000428

A. CLASSIFICATION OF SUBJECT MATTER

Int. CL⁷: C01B 39/02, 39/46

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

Derwent Online Abstracts, JAPIO Patent Abstracts of Japan, CAPLUS Chemical Abstracts Online, USPTO full text (internet), esp@cenet (internet) and Google (Internet) searches for "Zeolite N", "N Zeolite," "N-type Zeolite" and similar search terms.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A X	Barrer, et. al., "The Hydrothermal Chemistry of the Silicates. Part III, Reactions of Analcite and Leucite," JOURNAL OF THE CHEMICAL SOCIETY, 1953, pp 1466-1475.	1-30 31-64
A X	Barrer, et. al., "The Hydrothermal Chemistry of the Silicates. Part VII, Synthetic Potassium Aluminosilicates," JOURNAL OF THE CHEMICAL SOCIETY, 1956, pp 2882-2891.	1-30 31-64
A X	Barrer et. al., "The Hydrothermal Chemistry of the Silicates. Part XV, Synthesis and Nature of Some Salt-bearing Aluminosilicates," JOURNAL OF THE CHEMICAL SOCIETY, 1970, pp 2735-2745.	1-30 31-64
A X	Christensen, et. al., "Crystal Structure Determination of Zeolite N from Synchrotron X-Ray Powder Diffraction Data," ACTA CHEMICA SCANDINAVICA, Vol. 51 (1997), pages 969-973.	1-30 31-64

☒ Further documents are listed in the continuation of Box C☒ See patent family annex

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"E" earlier application or patent but published on or after the international filing date

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"O" document referring to an oral disclosure, use, exhibition or other means

"&"

document member of the same patent family

"P" document published prior to the international filing date but later than the priority date claimed

Date of the actual completion of the international search
17 May 2004Date of mailing of the international search report
20 MAY 2004

Name and mailing address of the ISA/AU

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C (Continuation).

DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A X	Christensen, et. al., "Neutron Powder Diffraction Study of the Dehydration of Zeolite N," ACTA CHEMICA SCANDINAVICA, Vol. 53 (1999), pages 85-89.	1-30 31-64
1-64	GB 1039345 A (SOCONY MOBIL OIL COMPANY INC) 17 August 1966 See whole document.	A
1-64	US 3306922 A (BARRER et. al.) 28 February 1967 and See whole document.	A
1-64	US 3414602 A (ACARA) 3 December 1968 See whole document.	A
1-64	US 2996358 (MILTON) 15 August 1961 See whole document.	A
1-64	US 4091079 (VAUGHAN) 23 May 1978 See whole document.	A
1-64	US 6218329 B (SINGH et. al.) 17 April 2001	A

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Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. Claims 1-30 relate to a specific method of making Zeolite N
 2. Claims 31-64 relate to Zeolite N characterised by its formula and uses thereof, not limited to its method of preparation.
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1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
 2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
 3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
 4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

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This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member			
GB	1039345	CH	424740	DE	1467133
US	3306922	CH	424739	CH	454803
		DE	1792734	DE	1792735
		GB	1005949	DE	1792736
		GB	1005950		
US	3414602				
US	2996358				
US	4091079				
US	6218329	AU	37371/95	AU	37372/95
		BR	9509505	BR	9509504
		CA	2201925	CA	2201926
		CN	1161679	CN	1161680
		EP	0797542	EP	0797541
		HK	1002761	HK	1002762
		IN	185687	IN	188161
		NZ	294539	NZ	294538
		US	6200919	US	6200919
		WO	9618577	WO	9618576
		ZA	9509003	ZA	9509004
Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.					
END OF ANNEX					